

ARIZONA COVID-19 RESPONSE

- Review of outbreak to date
- Overview of the virus
- COVID-19 by the numbers
- Public Health prevention and control strategies
- Additional resources

Agenda

China first reports cases of pneumonia with an unknown cause.

DEC 2019

JAN 2020

FEB 2020

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- The cause is identified as a new coronavirus.
- By the end of January, there were over 9,000 cases globally.
- Airport screening in the U.S. was initiated.
- The first case of novel coronavirus was detected in the US on January 21st in WA.
- Arizona confirms first case on January 26th.

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DEC 2019

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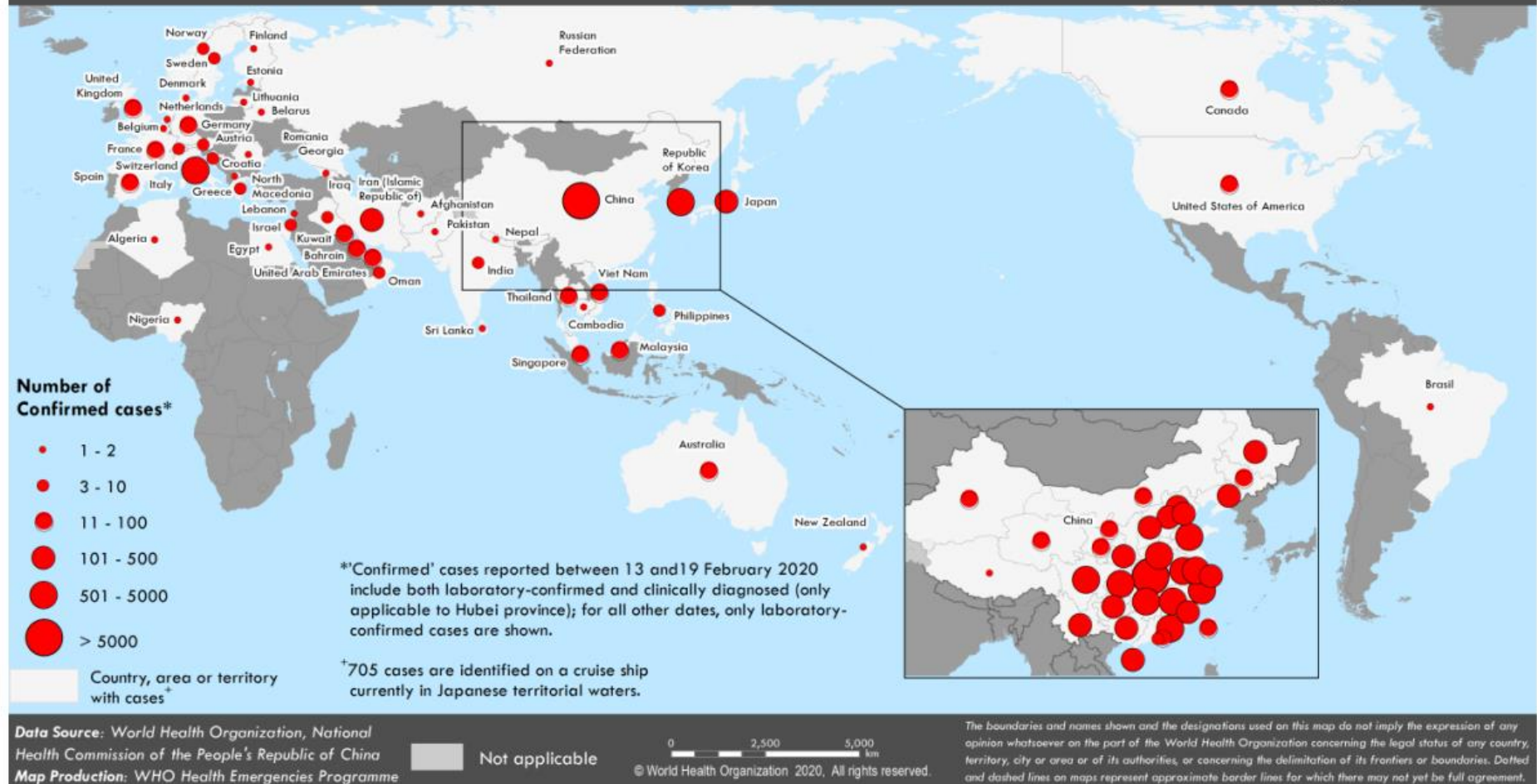
FEB 2020

- The WHO officially names the new disease COVID-19.
- By the end of February, there are 51 countries with cases and over 80,000 cases identified.
- U.S has their first possible community spread of COVID-19.

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Figure 1. Countries, territories or areas with reported confirmed cases of COVID-19, 28 February 2020

Distribution of COVID-19 cases as of 28 February 2020



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- Coronaviruses are a large family of viruses.
 - There are several known coronaviruses that infect people and usually only cause mild respiratory disease, such as the common cold.
- Coronaviruses can be found in animals, and some of these viruses have the capability of transmitting between animals and humans or from person-to-person.

COVID-19 : the virus

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- **Wide range** of symptoms from very mild to severe
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NOTE – this looks very similar to many other viral respiratory illnesses such as flu

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 - Information so far suggests that most COVID-19 illness is mild.
 - A report of China suggests serious illness occurs in 16% of cases.
 - Older people and people with underlying health conditions, like heart disease, lung disease and diabetes, for example, were about twice as likely to develop serious outcomes versus otherwise younger, healthier people.

COVID-19 : What we know

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COVID-19 : What we know

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- The virus is thought to spread **person-to-person** via respiratory droplets that are produced when someone infected with the virus coughs or sneezes
- There is currently no available medication to treat or vaccine to prevent
- You can take everyday measures **right now** including proper hand washing, covering coughs and sneezes, and staying home when you are sick

COVID-19 : What we know

**Containment of
virus at the
source**

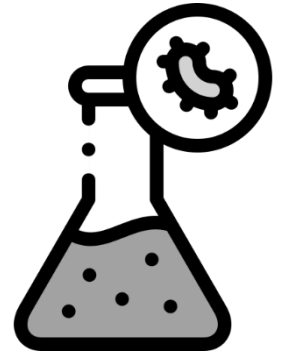
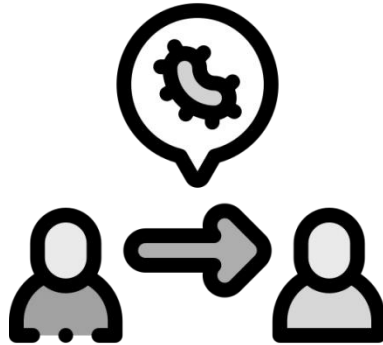


**Community
mitigation and
preparedness**

- In early stages of an outbreak like COVID-19:
 - Public health takes measures to contain diseases to stop them from spreading in our communities.

Containment

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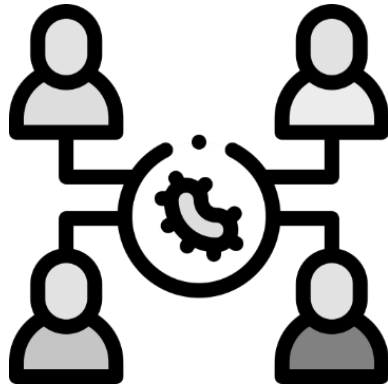


Containment

- Given national updates, it has become clear that there is a higher likelihood of community spread within the United States.
 - Public health measures begin to shift to slow the spread of the virus rather than to contain it at the source.

Mitigation

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Mitigation

PSAP Guidance

Identify, Isolate, Inform: Emergency Medical Services (EMS) Systems and 9-1-1 Public Safety Answering Points (PSAPs) for Management of Patients Who Present with Possible Coronavirus 2019 (COVID-19) in Arizona

SCOPE: Applies to all 911 and emergency medical services providers (including all levels of emergency medical care technicians and first responders who could be providing patient care in the field – such as fire service and law enforcement personnel).

DISPATCH/9-1-1 PSAPS

1.

Ask About Signs and Symptoms

Does the patient have fever or symptoms of lower respiratory illness (e.g., subjective or measured fever, cough, or difficulty breathing)?

NO →

If ALL responses for Box #1 are "No," continue with usual triage, assessment, and instructions

YES TO ANY



2.

Provide Instructions to Patients and EMS Providers

- Instruct other people at the scene to restrict contact with the patient unless wearing appropriate personal protective equipment (PPE).
- Alert any first responders and EMS providers being dispatched **before they arrive on scene.**
- Advise EMS providers that at a minimum, they should use the following PPE prior to direct contact with a patient that has any of these symptoms: subjective or measured fever, cough, or difficulty breathing.
 - Medical facemask
 - Gloves
- Advise EMS providers that if possible and available, they should use the following PPE before direct contact with a patient that has any of these symptoms: subjective or measured fever, cough, or difficulty breathing.
 - Medical facemask
 - Gloves
 - Gown
 - Eye Protection
- Place a facemask on the patient immediately upon arrival and making patient contact.
- Limit the number of EMS personnel having direct contact with the patient whenever possible.
- Additional information about PPE can be located at: <https://www.azdhs.gov/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/index.php#novel-coronavirus-home>



EMS Dispatched

Why is PSAP screening being recommended?

- Due to rising number of cases and multiple countries reporting cases, we feel that EMS should focus on “over-screening” patients.
- Goal is to increase use of PPE by EMS and provide a facemask to the patient for source control.
- PPE utilization and source control helps to decrease risk of exposure for EMS personnel, and reduce the risk of work restriction.

Risk Assessment Matrix

Epidemiologic risk factors	Exposure category	Recommended Monitoring for COVID-19 (until 14 days after last potential exposure)	Work Restrictions for Asymptomatic HCP
A. HCP (with unprotected eyes, nose, or mouth) ² who perform <u>or</u> are present in the room for a procedure likely to generate higher concentrations of respiratory secretions or aerosols (e.g., cardiopulmonary resuscitation, intubation, extubation, bronchoscopy, nebulizer therapy, sputum induction).	High	Active	Exclude from work for 14 days after last exposure
B. HCP who perform or are present in the room for a procedure likely to generate higher concentrations of respiratory secretions or aerosols (e.g., cardiopulmonary resuscitation, intubation, extubation, bronchoscopy, nebulizer therapy, sputum induction) and not using a gown and gloves. Note: If the HCP's eyes, nose, <u>or</u> mouth were also unprotected they would fall into the high-risk category above.	Medium	Active	Exclude from work for 14 days after last exposure

Risk Assessment Matrix

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C. HCP (with unprotected eyes, nose, <u>or</u> mouth) ² who have prolonged close contact with a patient <i>who was not wearing a facemask</i> . Note: A respirator confers a higher level of protection than a facemask. However, they are group together in this scenario because (even if a respirator or facemask was worn) the eyes remain uncovered while having prolonged close contact with a patient <i>who was not wearing a facemask</i> .	Medium	Active	Exclude from work for 14 days after last exposure
D. HCP (with unprotected eye, nose, and mouth) ² who have prolonged close contact with a patient <i>who was wearing a facemask</i> .	Medium	Active	Exclude from work for 14 days after last exposure
E. HCP (not wearing gloves) who have direct contact with the secretions/excretions of a patient and the HCP failed to perform immediate hand hygiene. Note: If the HCP performed hand hygiene immediately after contact, this would be considered low risk.	Medium	Active	Exclude from work for 14 days after last exposure

Risk Assessment Matrix

Epidemiologic risk factors	Exposure category	Recommended Monitoring for COVID-19 (until 14 days after last potential exposure)	Work Restrictions for Asymptomatic HCP
F. HCP wearing a facemask or respirator only who have prolonged close contact with a patient <i>who was wearing a facemask</i> . Note: A respirator confers a higher level of protection than a facemask. However, they are grouped together in this scenario and classified as <i>low-risk</i> because the patient was wearing a facemask for source control.	Low	Self with delegated supervision	None
G. HCP using all recommended PPE (i.e., a respirator or mask, eye protection, gloves and a gown) while caring for or having contact with the secretions/excretions of a patient	Low	Self with delegated supervision	None
H. HCP (not using all recommended PPE) who have brief interactions with a or patient regardless of whether patient was wearing a facemask (e.g., brief conversation at a triage desk; briefly entering a patient room but not having direct contact with the patient or their secretions/excretions; entering the patient room immediately after they have been discharged)	Low	Self with delegated supervision	None
I. HCP who walk by a patient or who have no direct contact with the patient or their secretions/excretions and no entry into the patient room	No identifiable risk	None	None

Prolonged Exposure

- However, until more is known about transmission risks, it would be reasonable to consider anything longer than a brief (e.g., **less than 1 to 2 minutes**) exposure as prolonged.
- <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assessment-hcp.html>

Types of Recommended Monitoring

- Active
 - Self-monitoring
 - Self-monitoring with delegated supervision
 - None
-
- The time frame recommended for monitoring is 14 days after last potential exposure.

Active Monitoring

- State or County Health Department assumes responsibility for communication with potentially exposed HCW to assess for presence of fever or respiratory symptoms.
- If medium or high risk, this should occur at least once daily.
- Method of communication left up to delegated authority.
- Health Department can delegate monitoring to HCW's occupational health or infection control program.

Self-Monitoring with Delegated Supervision

- HCW performs self-monitoring with oversight by their occupational health or infection control in conjunction with the Health Department.
- Supervising organization should remain in close contact with the HCW to oversee self-monitoring activities.
- HCW is monitoring themselves for the development of fever (checking temperature twice daily) or respiratory symptoms (cough, shortness of breath, sore throat.)

High & Medium Risk Exposure

- Active monitoring for 14 days after last exposure.
- Includes restriction from work in any healthcare setting.
- If fever or respiratory symptoms develop, they should immediately self-isolate and coordinate with County Health Department.

Low-Risk Exposure

- HCW should perform self-monitoring with delegated supervision for 14 days after last exposure.
- If asymptomatic, they are NOT restricted from work.
- Daily monitoring to ensure afebrile and asymptomatic before reporting to work.
- Employer may check the HCW daily for fever and respiratory symptoms.

Recommended Personal Protective Equipment (PPE)

- Based on the available evidence, SARS-CoV-2, the virus that causes COVID-19 infection, is transmitted via respiratory droplets between people in close contact, not by airborne transmission.
- Recommended PPE includes:
 - A single pair of disposable patient examination gloves
 - Disposable isolation gown
 - Medical or surgical mask
 - Eye protection (i.e., goggles or disposable face shield)

Specific Patient Care Considerations

- A facemask should be worn by the patient for source control if **COVID-19** is known or suspected.
- A simple medical facemask is sufficient for the patient.
- If only N95 masks are available, the most appropriately sized mask should be provided to the patient immediately upon patient contact.
- If a nasal cannula is in place, a facemask should be worn over the nasal cannula.
- Alternatively, an oxygen mask can be used if clinically indicated.
- Limit number of personnel who have direct contact with the patient and in the patient compartment to essential personnel whenever possible.

Aerosol-generating procedures

- EMS personnel should use:
 - Gowns
 - Gloves
 - Respirators (such as N95 mask)
 - Eye protection (goggles or face shield)
- Examples of aerosol-generating procedures:
 - Tracheal intubation
 - Non-invasive ventilation
 - Tracheostomy
 - Cardiopulmonary resuscitation
 - Manual ventilation before intubation

Why the Change in Type of Mask

- Airborne spread has not been reported for SARS-CoV-2, the virus that causes COVID-19, and it is not believed to be a major driver of transmission based on available evidence.
- The World Health Organization (WHO) developed guidance based on the consensus of international experts who considered the currently available evidence on the mode of transmission of SARS-CoV-2.
- This evidence demonstrates transmission by respiratory droplets and contact with contaminated surfaces of equipment; it does not support routine airborne transmission.

Why the Change in Type of Mask

- WHO has recommended medical masks for general patient care and respirators for aerosol-generating procedures only. [WHO: Rational use of personal protective equipment for coronavirus disease 2019 \(COVID-19\)](#)
- The Arizona Department of Health Services recommends medical masks as PPE during care of suspected or confirmed COVID-2019 cases.

EMS Transport of PUI or Patient with confirmed COVID-19

- Drivers, if they provide direct patient care (e.g., moving patients onto stretchers), should wear all recommended PPE. After completing patient care and before entering an isolated driver's compartment, the driver should remove and dispose of PPE and perform hand hygiene to avoid soiling the compartment.
 - If the transport vehicle does **not** have an isolated driver's compartment, the driver should remove the face shield or goggles, gown and gloves and perform hand hygiene. A respirator should continue to be used during transport.
- All personnel should avoid touching their face while working.
- EMS clinicians should notify the receiving facility that the patient has an exposure history and signs and symptoms suggestive of **COVID-2019**
- Family members should not ride in the transport vehicle if possible. If they do accompany the patient, they should be provided a mask.

EMS Transport of PUI or Patient with confirmed COVID-19

- Isolate the ambulance driver from the patient compartment & keep pass-through doors and windows tightly shut.
- On arrival, after the patient is released to the facility, EMS clinicians should remove and discard PPE and perform hand hygiene.
- Used PPE should be discarded in accordance with routine procedures.

Cleaning EMS Transport Vehicles after Transporting a PUI or Patient with Confirmed COVID-19

- After transporting the patient, leave the rear doors of the transport vehicle open to allow for sufficient air changes to remove potentially infectious particles. **The time to complete transfer of the patient to the receiving facility and complete all documentation should provide sufficient air changes.**
- When cleaning the vehicle, EMS clinicians should wear a disposable gown and gloves. A face shield or facemask and goggles should also be worn if splashes or sprays during cleaning are anticipated.
- Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly, to include the provision of adequate ventilation when chemicals are in use. Doors should remain open when cleaning the vehicle.

Cleaning EMS Transport Vehicles after Transporting a PUI or Patient with Confirmed COVID-19

- Use an EPA-approved agent that lists effectiveness in disinfecting Coronaviruses
 - <https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants>
- Clean & disinfect the vehicle in accordance with standard operating procedures.
- All surfaces that may have come in contact with the patient or materials contaminated during patient care (e.g., stretcher, rails, control panels, floors, walls, work surfaces) should be thoroughly cleaned and disinfected using an EPA-registered hospital grade disinfectant in accordance with the product label.
- Clean and disinfect reusable patient-care equipment before use on another patient, according to manufacturer's instructions.

CDC Resources

- CDC: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>
- EMS: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html>
- Airport or other port of entry to the United States, the PSAP or EMS unit should notify the CDC Quarantine Station for the port of entry. Contact information for CDC Quarantine Stations can be accessed at <https://www.cdc.gov/quarantine/quarantinestationcontactlistfull.html>

Additional Resources

- World Health Organization:
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
https://apps.who.int/iris/bitstream/handle/10665/331215/WHO-2019-nCov-IPCPPE_use-2020.1-eng.pdf
- ADHS Coronavirus Disease 2019 (COVID-19):
<https://www.azdhs.gov/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/index.php#novel-coronavirus-home>
- ADHS Coronavirus Disease 2019 (COVID-19) 911 & EMS:
<https://www.azdhs.gov/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/index.php#novel-coronavirus-ems-resources>
- AZ Public Health Contact List:
<https://azdhs.gov/preparedness/epidemiology-disease-control/index.php#resources-county>



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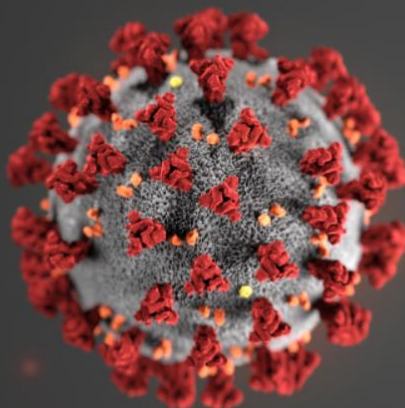
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Coronavirus Disease 2019 (COVID-19)

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Coronavirus Disease 2019

Coronavirus Disease 2019

CDC is closely monitoring the novel coronavirus outbreak.

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<https://www.cdc.gov/coronavirus/2019-ncov/index.html>



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Questions?

- If you have any questions about this presentation, please contact Gail.Bradley@azdhs.gov
- If you have any clinical or PUI-related questions, please contact your local public health department.